



SIKAND

Engineering | Planning | Surveying

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AUTHORIZATION FOR ENGINEERING & SURVEY SERVICES

AUTHORIZATION NO. 15549

DATE May 22, 2019

CLIENT: William S. Hart Union High School District SIKAND JOB NO.: 5088-071-08.F

ADDRESS: 21380 Centre Pointe Parkway ADDENDUM NO.: 02

Santa Clarita, CA 91350 CLIENT PROJECT NO.:

ATTENTION: Mr. Michael Otavka CONTRACT OR P.A. NO.:

LOCATION OF WORK (TRACT OR PARCEL MAP NO.:

PROJECT DESCRIPTION: Sloan Canyon Rd. at Parker Rd. intersection Traffic Signal Engineering

Design Services

WORK REQUESTED BY: Mr. Michael Otavka

SCOPE OF SERVICES: This work is entered into pursuant to the Master Services Agreement by and between Sikand Engineering Associates and William S. Hart Union High School District dated February 5, 2014.

PHASE 112A: TRAFFIC SIGNAL ENGINEERING DESIGN SERVICES

See attached scope of services which will include our subconsultant Daryl Zerfass, PE of Statec.

This item of service will be furnished on a time and materials basis (T&M). The budget provided will not be exceeded without prior authorization from the client.

ENGINEERING AMT REQUESTED: \$ 37,324

SIKAND ENGINEERING ASSOCIATES

Mark R. Sikand, Lic. No. 35453
W. Craig Young, Lic. No. 32363

BY: 
Doug Farmer

TITLE: Project Manager

DATE: May 22, 2019

CLIENT: WSHUHSD

REPRESENTATIVE:

DATE:

I. SCOPE OF SERVICES

Thank you for providing Sikand Engineering Associates, Inc. (Sikand) the opportunity to submit this proposal to William S. Hart Union High School District (Client) to provide traffic engineering services for traffic signal warrant analysis and PS&E preparation for traffic signal installation and striping improvements at the Sloan Canyon Road/Parker Road intersection in Los Angeles County, CA. These improvements are to be implemented pursuant to mitigation measures identified for the intersection in the *Castaic High School Supplemental EIR, July 2014*.

We will provide our services on a time-and-materials, not-to-exceed basis, in accordance with the following scope of services and attached fee schedule.

1. Signal Warrant Analysis

1.1 Traffic Volume and Accident Data Collection

To support traffic signal warrant analysis, Sikand will have new traffic volume data collected at the project intersection. One (1) weekday am/pm peak hour intersection turning movement count including pedestrians and bicycle volumes will be conducted together with one (1) weekday two-way 24-hour roadway count on each leg of the intersection (total one (1) weekday intersection turning movement count and three (3) 24-hour roadway segment counts). Sikand will also assemble traffic forecasts of future high school project volumes which will be combined with existing counted traffic volumes to support applicable traffic signal warrants. Sikand will also collect SWITRS accident data for a recent 3-year history at the intersection to support evaluation of the Crash Experience Warrant.

1.2 Traffic Signal Warrant Preparation

Sikand will complete applicable traffic signal warrants per the California Manual on Uniform Traffic Control Devices (CA MUTCD) for existing and future conditions based on the data collected above. The anticipated warrants for evaluation of existing conditions include; Warrant 1 – Eight-hour Vehicular Volume; Warrant 2 – Four-Hour Vehicular Volume; Warrant 3 – Peak Hour, Warrant 4 – Pedestrian Volume; and Warrant 7 – Crash Experience. For future forecast volume scenarios, the analysis will include Warrant 3, the Traffic Signal Warrants Worksheet (Average Traffic Estimate Form) Figure 4C-103 (CA) of the CA MUTCD, and other applicable warrants, data allowing.

2. Plans, Specifications, and Engineers Opinion of Probable Construction Cost (PS&E) Preparation

2.1 Background and Utility Research/Coordination

Sikand will research and obtain from the County of Los Angeles, utility companies and/or other appropriate agencies available as-built record street improvements, utility plans and right-of-way drawings for the Sloan Canyon Road/Parker Road intersection area. Sikand will identify utilities within the intersection limits as shown on the available record plans of existing roadway and utility facilities. Sikand will also coordinate with the serving electrical utility for establishing an electrical service point of connection for the signal and safety lighting.

Conduits, foundations, and other substructures associated with the proposed signal improvements will only be located where believed to be free of potential conflicts based upon review of the as-built plans and field topographic design survey. Potholing of signal pole foundation locations is not included in this scope of work but should be considered prior to construction. Design plans will be sent to identified utility owners/agencies to confirm depiction of their facilities as shown on the plans.

This scope of work does not include design for relocation of existing utilities. Any unavoidable conflicts or concerns regarding existing utility facilities will be identified and discussed with Client for further direction. Sikand will coordinate and provide information to utility agencies/owners responsible for design and relocation of any conflicting facilities. If utility relocations are responsibility of Client, Sikand can coordinate and design relocation based on an augmented scope of work when design requirements are known.

2.2 Design Survey and Base Map Preparation

Sikand will provide topographic design survey for the Sloan Canyon Road/Parker Road intersection for base mapping of the traffic signal installation plan.

Control data will be assembled and established for the project area. Topographic base map limits at the intersection will extend approximately 250' in both directions of Sloan Canyon Road from the side street curb returns (to limit of advance vehicle detection for 40 mph posted speed limit). The survey will include 25-foot (max.) cross section intervals along Sloan Canyon Road within the first 100 feet in each direction, and 25-foot (max.) intervals along 100 feet on Parker Road. Cross sections will include but not be limited to right-of-way, back/front of walk, top of curb, flow line, gutter lip, lane lines, centerline, and any visible surface utilities, top and bottom of access ramps and driveway aprons, landscaping, trees, power/utility poles, street lights, and signage.

The survey data will be downloaded and compiled to create topographic base maps of the project areas, including right-of-way, centerline, surface features, and culture. Any fees required to obtain an agency encroachment permit for the design survey will be paid by the Client.

2.3 Traffic Signal Design PS&E

Sikand will prepare one (1) traffic signal installation plan using AutoCAD, at 1" = 20' scale, for the Sloan Canyon Road/Parker Road intersection. Base mapping for plan preparation will be based on design survey performed by Sikand.

Design will follow applicable California Manual on Uniform Traffic Control Devices (CA MUTCD) and Los Angeles County Department of Public Works standards. It is anticipated that one new crosswalk will be provided across Sloan Canyon Road on the westerly side of the intersection and will connect existing access ramps.

If based on the design survey, it is determined existing pedestrian access ramps at the intersection do not meet current ADA standards, it is assumed the deficient ramps will be reconstructed. Access ramp improvements will be shown on the traffic signal plan or on a separate detail sheet. The improvement plan set will also include a title sheet.

This task also includes safety lighting design at the intersection associated with the traffic signal improvements. This scope does not include preparation of a separate plan for interconnection of the new signal controller cabinet to an existing signal cabinet. The nearest signalized intersection to the project is Sloan Canyon Road/The Old Road approximately 0.5-mile to the northeast.

Technical specifications for the signal will be based on Los Angeles County boilerplate specifications. An estimate of probable construction cost will be prepared for the signal improvements shown on the plans.

2.4 Signing and Striping Design PS&E

Sikand will prepare one (1) signing and striping plan using AutoCAD, at 1" = 20' or 40' scale, to provide an eastbound right turn lane on the westerly leg of the intersection. The plan will also include crosswalks, limit lines, pavement markings and signs required by the new signal. The design will follow applicable CA MUTCD and County of Los Angeles standards.

Sikand will submit PS&E electronically and/or in hard copy format to the Client for agency processing.

3. Processing & Project Management

- a. Coordination with client, project consultants, public agencies and any other entity necessary to obtain project approvals and permits.
- b. Attend any necessary meetings with client, consultants or public agencies, architect, landscape architect, and any other member of client's consultant team.
- c. Coordination of design efforts, preparation and updates of schedules, interfacing with other team consultants, and agency strategy meetings and client meetings in the preparation of the services described above.
- d. Coordination and processing will be provided with, The County of Los Angeles Department of Public Works.

II. PROPOSED FEES

We will provide our services on a time-and-materials, not-to-exceed basis, in accordance with the attached fee schedule.

EXHIBIT "A" **SCOPE OF SERVICES**

1. Traffic Signal Warrant Analysis

1.1 Traffic Volume Data Collection.....	\$ 1,176
1.2 Traffic Signal Warrant Preparation	\$ 5,400

2. PS&E Preparation

2.1 Background and Utility Research/Coordination	\$ 4,344
2.2 Design Survey and Base Map Preparation	\$ 6,048
2.3 Traffic Signal Design PS&E	\$ 9,516
2.4 Signing and Striping Design PS&E.....	\$ 2,760

3. Project Management & Processing\$ 7,600

This item of service will be furnished on T&M basis. The budget provided will not be exceeded without client's authorization. An initial budget of 40 hours is included per the attached fee schedule.

Reimbursables.....\$ 480

Total Fees.....\$ 37,234

We appreciate the opportunity to submit this proposal and look forward to being of service to you on this Project. If this proposal is acceptable, please indicate your approval by signing and returning a copy to our office. Should you have any questions, please contact me at (818) 787-9550.



HOURLY RATES FOR PROFESSIONAL SERVICES

LAND USE ENTITLEMENTS, ENGINEERING AND OFFICE SURVEY

Administrative and Project Assistants	\$ 65 - \$120
Civil Engineering Designers and Engineers	\$120 - \$145
Planners, Assistant Planners and Senior Planners	\$105 - \$185
Project Engineers, Sr. Project Engineers and Sr. Project Surveyors	\$145 - \$185
Project Management, Directors	\$185 - \$215
Principals	\$200 - \$250

EXPEDITING, PERMITS, PROCESSING, AND PROJECT MANAGEMENT

Directors	\$185 - \$215
Senior Project Coordinator	\$155 - \$185
Project Coordinator	\$105 - \$145
Non-Sikand Project Processing	\$215 - \$275

FIELD SURVEYING

Three-Person Survey Party	\$350
Two-Person Survey Party	\$265
One-Person Survey Party	\$185
Field Engineer	\$185

LEGAL AND COMPUTER SERVICES

Legal Consultation and Depositions (minimum half day)	\$450
AutoCAD, including plotter	\$ 33
Global Positioning System	\$ 33

The above rates exclude reproduction costs and other reimbursables, which will be billed at cost, and are not a part of our budgets/estimates. Also, the above schedule is for straight time only. Overtime will be charged at 135% of the standard hourly rates. Sundays and holidays will be charged at 170% of the standard hourly rates.

THESE RATES ARE IN EFFECT AS OF OCTOBER 1, 2018.

These rates are subject to our annual rate adjustment.